

## AMENDMENTS TO THE CLAIMS

Kindly amend claims **1, 5, 19** and add new claims **25-28** as shown in the listing of claims below.  
This listing of claims will replace all prior versions, and listings of claims in the application.

## LISTING OF CLAIMS

1. (currently amended) A Digital Focus Lens System for providing an optical system having a plurality of selectable focal powers, comprising:
  - a first switchable element capable of being switched between a first-element first-state and a first-element second-state; and
  - and a second switchable element capable of being switched between a second-element first-state and a second-element second-state;wherein the first and second switchable elements are in optical communication with each other such that each of them may contribute to a cumulative focal power,  
wherein, a first focal power may be selected by activation of the first switchable element to the first-element first-state and activation of the second switchable element to the second-element first-state,  
wherein a second focal power is selected by activation of the first switchable element to the first-element second-state and activation of the second switchable element to the second-element first-state,  
wherein a third focal power is selected by activation of the first switchable element to the first-element first-state and activation of the second switchable element to the second-element second-state, and  
wherein a fourth focal power is selected by activation of the first switchable element to the first-element second-state and activation of the second switchable element to the second-element second-state.[[.]]
2. (original) The system according to Claim 1 wherein a portion of the switchable elements include liquid crystal lenses.
3. (original) The system according to Claim 1 wherein a portion of the switchable elements include switchable holographic optical elements.

1 4. (original) The system according to Claim 1 wherein a portion of the switchable elements  
2 include polymer dispersed liquid crystal.

1 5. (currently amended) The system according to Claim 1 wherein a portion of the switchable  
2 elements form a lens stack.[[.]]

1 6. (original) The system according to Claim 1 further comprising one or more non-switchable  
2 elements for further modifying the optical properties of the system.

1 7. (original) The system according to Claim 1 further comprising any number of additional  
2 switchable elements.

1 8. (original) The system according to Claim 1 wherein a portion of the switchable elements  
2 include electro-optic lenses.

1 9. (original) The system according to Claim 1 wherein a portion of the switchable elements  
2 include liquid crystal and polymer lenses.

1 10. (original) The system of claim 1 wherein the digital focus lens system is a digital telescope,  
2 telephoto lens, or zoom lens.

1 11. (original) The system of claim 1 wherein the digital focus lens system is a digital camera.

1 12. (original) The system of claim 1 wherein the digital focus lens system is a digital projector.

1 13. (original) The system of claim 1 wherein the digital focus lens system is a digital microscope.

1 14. (original) The system of claim 1 further comprising a controller for providing control signals  
2 that serve to activate the first and second switchable elements.

1 15. (original) The system according to Claim 1 wherein a portion of the switchable elements may  
2 be continuously tuned between the focal powers of their respective first- and second-  
3 states.

1 16. (original) The system of claim 1 further comprising one or more light sources for providing  
2 light to be transmitted through and modified by the system.

1 17. (original) The system of claim 16 wherein the light is received and transmitted by the first  
2 and second switchable elements and is modified in accordance with the selected focal  
3 powers of the first and second switchable elements.

1 18. (original) The system of claim 17 wherein a portion of the light transmitted by the system  
2 forms one or more images.

1 19. (currently amended) A method for fabricating a switchable element, comprising:  
2 providing a structure having a conductive layer disposed between a substrate and a lens  
3 function layer;  
4 providing a die substrate with a spatially varying thickness pattern;  
5 while the lens function layer is in a soft or viscous state, bringing the die surface into  
6 contact with the lens function layer; and  
7 hardening the lens function layer[[: and]].

1 20. (original) The method of claim 19, further comprising attaching a second lens function layer  
2 to a surface of the substrate and, while the second lens function layer is in a soft or  
3 viscous state, bringing a die surface with a varying thickness pattern into contact with the  
4 second lens function layer, hardening the second lens function layer and separating the  
5 die surface from the second lens function layer.

1 21. (original) A method for controlling a digital lens system having N switchable elements in  
2 optical communication with each other such that each of them may contribute to a  
3 cumulative focal power, where N is 1 or more, wherein each switchable element is  
4 capable of being switched between a first-state and a second-state, the method  
5 comprising:  
6 generating a control signal containing information for controlling the states of each of the  
7 N switchable elements; and  
8 coupling the control signal to the N switchable elements to set the state of each of the N  
9 switchable elements,  
10 and wherein a portion of the control signal includes a data stream comprising a control  
11 word.

1 22. (original) The method of claim 21 wherein the control word is a digital word having a bit  
2 field length of  $N$  bits.

1 23. (original) The method of claim 19 wherein the control signal is an electrical signal.

1 24. (original) The method of claim 23 wherein the control signal is at a voltage, current or  
2 frequency appropriate for activating the switchable elements to their desired states.

1 25. (new) The system of claim 1 wherein one or more of the first and second switchable elements  
2 is made by:  
3 providing a structure having a conductive layer disposed between a substrate and a lens  
4 function layer;  
5 providing a die substrate with a spatially varying thickness pattern;  
6 while the lens function layer is in a soft or viscous state, bringing the die surface into  
7 contact with the lens function layer; and  
8 hardening the lens function layer.

1 26. (new) The system of claim 25 wherein fabrication of one or more of the first and second  
2 switchable elements further includes:  
3 attaching a second lens function layer to a surface of the substrate and, while the second  
4 lens function layer is in a soft or viscous state, bringing a die surface with a varying  
5 thickness pattern into contact with the second lens function layer, hardening the second  
6 lens function layer and separating the die surface from the second lens function layer.

1 27. (new) The system of claim 1 wherein one or more of the first and second switchable elements  
2 has a focal power that is continuously tunable.

1 28. (new) The system of claim 1 wherein one or more of the first and second switchable elements  
2 includes a fluid.